

40. **(Twice Amended.)** An isolated polynucleotide comprising a polynucleotide sequence selected from the group consisting of:

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- a) a polynucleotide sequence encoding an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4,
  - b) a polynucleotide sequence encoding a naturally-occurring amino acid sequence 90% identical to an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4,
  - c) a polynucleotide sequence fully complementary along its length to a),
  - d) a polynucleotide sequence fully complementary along its length to b), and
  - e) a ribonucleotide equivalent of a)-d).

41. **(Reiterated.)** An isolated polynucleotide of claim 40, having a sequence of SEQ ID NO:1.

42. **(Reiterated.)** An isolated polynucleotide of claim 40, having a sequence of SEQ ID NO:3.

43. **(Reiterated.)** An isolated polypeptide encoded by a polynucleotide of claim 40.

44. **(Reiterated.)** An isolated polypeptide of claim 43, having a sequence of SEQ ID NO:2.

45. **(Reiterated.)** An isolated polypeptide of claim 43, having a sequence of SEQ ID NO:4.

46. **(Reiterated.)** A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 40.

47. **(Reiterated.)** A cell transformed with a recombinant polynucleotide of claim 46.

48. **(Reiterated.)** A method for producing a polypeptide, the method comprising:

- a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide of claim 46, and
- b) recovering the polypeptide so expressed.

49. **(Reiterated.)** A method of claim 48, wherein the polypeptide has the sequence of SEQ ID NO:2.


50. **(Reiterated.)** A method of claim 48, wherein the polypeptide has the sequence of SEQ ID NO:4.

51. **(Reiterated.)** An isolated antibody which specifically binds to a polypeptide of claim 43.

52. **(Twice Amended.)** An isolated polynucleotide comprising a sequence selected from the group consisting of:

- a) a polynucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3,
- b) a naturally-occurring polynucleotide sequence 90% identical to a polynucleotide of SEQ ID NO:1 or SEQ ID NO:3,
- c) a polynucleotide sequence fully complementary along its length to a),
- d) a polynucleotide sequence fully complementary along its length to b), and
- e) a ribonucleotide equivalent of a)-d).

53. **(Twice Amended.)** A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 52, the method comprising:

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- a) hybridizing the sample with a probe comprising a segment of at least 20 contiguous nucleotides of a polynucleotide having a sequence complementary to said target polynucleotide in the sample, wherein said probe specifically hybridizes to said target

polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and

- 1-2
- b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof; wherein the amount of hybridization complex corresponds to the amount of target polynucleotide in the sample.
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54. (As Once Amended.) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 52, the method comprising:

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- a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and
- b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof; wherein the amount of amplified polynucleotide corresponds to the amount of target polynucleotide in the sample.
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55. (Reiterated.) A composition comprising a polypeptide of claim 43 and an acceptable excipient.

56. (Reiterated.) A composition of claim 55, wherein the polypeptide has the sequence of SEQ ID NO:2.

57. (Reiterated.) A composition of claim 55, wherein the polypeptide has the sequence of SEQ ID NO:4.

58. (Reiterated.) A method for screening a compound for effectiveness as an agonist of a polypeptide of claim 43, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 43 to a compound, and
- b) detecting agonist activity in the sample.

59. **(Reiterated.)** A method for screening a compound for effectiveness as an antagonist of a polypeptide of claim 43, the method comprising:

- a) exposing a sample comprising a polypeptide of claim 43 to a compound, and
- b) detecting antagonist activity in the sample.

60. **(Reiterated.)** A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a polynucleotide sequence of claim 52, the method comprising:

- a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,
- b) detecting altered expression of the target polynucleotide, and
- c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

**Please add the following new claims:**

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61. **(New.)** An isolated polypeptide selected from the group consisting of:

- E4
- a) a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4,
  - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4,
  - c) a biologically active fragment of a polypeptide having an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4, and
  - d) an immunogenic fragment of a polypeptide having an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4.

62. **(New.)** A method of inducing an immune response, comprising administering to a patient in need of such treatment an immune-response inducing amount of a polypeptide of claim 61.

63. (New.) A method of inducing an immune response, comprising administering to a patient in need of such treatment an immune-response inducing amount of a polypeptide of claim 44.

64. (New.) A method of inducing an immune response, comprising administering to a patient in need of such treatment an immune-response inducing amount of a polypeptide of claim 45.

65. (New.) A method of claim 62, wherein the immune response is a chemotactic response in a leukocyte.

66. (New.) A method of claim 65 wherein said response is chemoattractive.

67. (New.) A composition comprising a polypeptide of claim 61 and an acceptable excipient.

68. (New.) A method of treating inflammation or disease mediated by a polypeptide of claim 61, comprising administering an antibody, an inhibitor, or a receptor specific to said polypeptide.

69. (New.) A method of treating inflammation or disease mediated by a polypeptide of claim 61, comprising administering an agonist or antagonist thereof.

70. (New.) A method of treating inflammation or disease mediated by a polypeptide of claim 61, comprising administering an antibody to a receptor specific to said polypeptide.

71. (New.) A method of claim 71, wherein said antibody is monoclonal.

72. (New.) A method of treating excessive production of a polypeptide of claim 61, comprising administering an antibody, inhibitor, receptor or antagonist thereof.

73. (New.) A method of treating excessive production of a polypeptide of claim 61, comprising administering an antibody to a receptor specific to said polypeptide.

74. (New.) A method of claim 69, wherein said disease is a viral or bacterial infection, injury associated with trauma, hereditary disease, infiltrative disease, leukemia or lymphoma.

75. (New.) A method of claim 69, wherein the disease is a disease of the pancreas.

76. (New.) A polypeptide comprising a fragment of a polypeptide claim 45 from amino acid 79 to amino acid 134.

77. (New.) A polypeptide comprising a fragment of a polypeptide claim 45 from amino acid 105 to amino acid 134.

78. (New.) A polypeptide comprising a fragment of a polypeptide claim 45 from amino acid 79 to amino acid 105.

79. (New.) A method of making a recombinant polynucleotide of claim 46, wherein the polynucleotide encodes a polypeptide of SEQ ID NO:4, comprising operably linking a polynucleotide encoding a polypeptide of SEQ ID NO:4 to promoter sequence, whereby the resulting recombinant polynucleotide is capable of being expressed in a host cell.

80. (New.) An isolated antibody which specifically binds to a polypeptide of claim 61.

81. (New.) An isolated antibody of claim 80 which specifically binds to a polypeptide having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4.

82. (New.) An isolated antibody of claim 81, wherein said polypeptide has a sequence of SEQ ID NO:2.

83. (New.) An isolated antibody of claim 81, wherein said polypeptide has a sequence of SEQ ID NO:4.

84. (New.) The antibody of claim 81, wherein the antibody is:

- a) a chimeric antibody,
- b) a single chain antibody,
- c) a Fab fragment,
- d) a F(ab')<sub>2</sub> fragment, or
- e) a humanized antibody.

85. (New.) A composition comprising an antibody of claim 81 and an acceptable excipient.

86. (New.) A composition comprising an antibody of claim 82 and an acceptable excipient.

87. (New.) A composition comprising an antibody of claim 83 and an acceptable excipient.

88. (New.) A method of diagnosing a condition or disease associated with the expression of a polypeptide having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 in a subject, comprising administering to said subject an effective amount of the composition of claim 85.

89. (New.) A composition of claim 85, wherein the antibody is labeled.

90. (New.) A method of diagnosing a condition or disease associated with the expression of a polypeptide having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 in a subject, comprising administering to said subject an effective amount of the composition of claim 89.

91. (New.) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 81, the method comprising:

- a) immunizing an animal with a polypeptide having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibodies from said animal, and
- c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which binds specifically to a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4.

92. (New.) An polyclonal antibody produced by a method of claim 91.

93. (New.) A composition comprising the polyclonal antibody of claim 92 and a suitable carrier.

94. (New.) A method of making a monoclonal antibody with the specificity of the antibody of claim 81, the method comprising:

- a) immunizing an animal with a polypeptide consisting of an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibody producing cells from the animal,
- c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells,
- d) culturing the hybridoma cells, and
- e) isolating from the culture monoclonal antibody which binds specifically to a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4.

95. (New.) A monoclonal antibody produced by a method of claim 94.



96. (New.) A composition comprising the monoclonal antibody of claim 95 and a suitable carrier.

97. (New.) The antibody of claim 81, wherein the antibody is produced by screening a Fab expression library.

98. (New.) The antibody of claim 81, wherein the antibody is produced by screening a recombinant immunoglobulin library.

99. (New.) A method of detecting a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 in a sample, the method comprising:

- a) incubating the antibody of claim 81 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 in the sample.

100. (New.) A method of purifying a polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 from a sample, the method comprising:

- a) incubating the antibody of claim 81 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising an amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4.

101. (New.) A diagnostic test for a condition or disease associated with the expression of a polypeptide having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:4 in a biological sample, the method comprising:

- a) combining the biological sample with an antibody of claim 81, under conditions suitable for the antibody to bind the polypeptide and form an antibody:polypeptide complex, and
- b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

102. (New.) A method of purifying a receptor for a polypeptide of claim 61, comprising

- a) contacting a polypeptide of claim 61 bound to a support with a sample comprising an extract of receptor-bearing cells, under conditions where receptor binds to the polypeptide,
- b) recovering and isolating the receptor bound to the polypeptide.

103. (New.) A method of claim 102 for cloning the receptor, further comprising

- c) partially sequencing the receptor isolated in step b),
- d) designing degenerate probes to the sequence identified in step c),
- e) cloning the receptor gene.

104. (New.) A method of screening for a compound that modulates the activity of the polypeptide of claim 61, the method comprising:

- a) combining the polypeptide of claim 61 with at least one test compound under conditions permissive for the activity of the polypeptide of claim 61,
- b) assessing the activity of the polypeptide of claim 61 in the presence of the test compound, and
- c) comparing the activity of the polypeptide of claim 61 in the presence of the test compound with the activity of the polypeptide of claim 61 in the absence of the test compound, wherein a change in the activity of the polypeptide of claim 61 in the presence of the test compound is indicative of a compound that modulates the activity of the polypeptide of claim 61.